REMARKS

This amendment is submitted in response to an Office Action mailed April 11, 2002. Applicant respectfully requests reconsideration of the subject application as amended herein.

The specification has been amended to address previously undetected informalities. Claims 1, 5-6, 8-10, 12-15, and 18-19 have been amended, no claims have been added, and no claims have been cancelled. Accordingly, claims 1-19 remain pending in the application. Applicant submits that no new matter has been added.

Abstract

The abstract of the disclosure was objected to because the title of the Application appears on the Abstract sheet. Applicant has included herewith a replacement Abstract sheet omitting the title of the application.

Claim Rejections Under 35 U.S.C. §103(a)

Claims 1-7 and 14-19

Claims 1-7 and 14-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,390,233 issued to Jensen et al (hereinafter "Jensen"), in view of U.S. Patent No. 6,195,531 issued to Aguirre et al. (hereinafter "Aguirre"), and U.S. Patent No. 5,825,864 issued to McGraw et al. (hereinafter "McGraw").

Amended Claim 1 is drawn to a method of transferring an in-progress telephone call between a wireless device and a wired device. The method comprises:

> establishing a short-range wireless communication link directly between the wireless device and wired device;
> at the wireless device, receiving an identifier that has been transmitted from the wired device to the wireless device over the direct wireless communication link; and
> at the wireless device, transmitting the identifier together with a call transfer request to enable the telephone call to be transferred to the wired device. (emphasis added)

Thus in accordance with claim 1, a short-range **wireless communication link** is first established **directly between a wireless device and a wired device**. Once the direct wireless communication link is established, the wireless device then receives an identifier **over the wireless communication link directly from** the wired device, which is then transmitted together with a call transfer request by the wireless device to enable the telephone call to be transferred to the wired device. Such a direct wireless communication link **DOES NOT** require nor involve the use of an intermediate base station or third party device such as e.g. a fixed cellular terminal (FCT) or portable computer to facilitate wireless communication between the wireless device (i.e. wireless phone) and the wired device (i.e. wireline phone). That is to say, each of the wireless and wired devices are equipped to communicate directly with one another wirelessly in order to exchange an identifier that is then used to transfer a call from the wireless device to the wired device. Accordingly, much of the complexity and additional switching hardware/logic required in prior art attempts to transfer calls between wireless and wireline devices are obviated.

Although Jensen discloses a method of transferring an in-progress telephone call between a wireless device and a wired device, Applicant respectfully submits that Jensen DOES NOT disclose or suggest establishing a short-range wireless communication link directly between the wireless device and wired device. To the contrary, Jensen describes establishing a wireless communication link between a wireless device and a wired device via a base station and a wireless network controller (as pointed out by Examiner). Thus, the wireless communication link is not established directly between the wireless device and the wired device, but rather between the wireless device and a base station.

Examiner states that such a technique of establishing a short-range wireless communication link between a wireless device and a wired device is taught by Aguirre. Applicant respectfully submits that Aguirre **DOES NOT** disclose or suggest establishing a short-range wireless communication link directly between the wireless device and wired device. More specifically, Aguirre discloses establishing a wireless communications link between a wireless device (e.g. Fig 1, portable phone 130) and an FCT (e.g. Fig 1, item 135) via base station 125, Mobile Services Switching Center (MSC) 115 and base station 125', and **NOT** establishing a wireless communications link directly between a wireless device (e.g. portable phone 130) and a wireline device (e.g. Fig 1, phone 105) as recited in amended claim 1. Furthermore, although Aguirre discloses that the FCT can receive country and/or network information "transmitted over a short-distance by a wire or a cable, by infrared transmission, by radio frequency transmission (e.g. Bluetooth technology), etc.", Aguirre only discloses that the information can be transmitted from a nearby portable computer. Thus, Aguirre merely

states that an intermediate device (i.e. FCT) can receive information wirelessly from a third party device (i.e. portable computer). Aguirre does not disclose or suggest that a wireless communications link could/should be established directly between a wireless device and a wired device to exchange identifier information.

Accordingly, Applicant respectfully submits that it **would not have been obvious** to one of ordinary skill in the art at the time the invention was made to modify Jensen with the teachings of Aguirre to achieve Applicant's invention as recited by at least claim 1.

McGraw is cited for teaching "the same technique for automatically recognizing the identifier at the wireless device and then establishing a call transfer request from the wireless device to a wired device." Whether or not McGraw teaches that which is suggested, McGraw does not disclose or suggest establishing a short-range wireless communication link directly between the wireless device and wired device, and receiving (at the wireless device) an identifier that has been transmitted from the wired device to the wireless device over the direct wireless communication link.

Thus, for at least the reasons set forth above, Applicant respectfully submits that Jenson, Aguirre and McGraw (alone or in combination) do not disclose or suggest all the elements of claim 1. Accordingly, Applicant submits that claim 1 is patentable over Jenson in view Aguirre and McGraw and thus allowable.

As independent claims 14, 18 and 19 have been amended to state that the wireless device and wired device communicate over a direct wireless communication link, or similar limitation, Applicant respectfully submits that independent claims 14, 18

and 19 are likewise patentable over Jenson in view Aguirre and McGraw and are thus allowable.

Given that claims 2-7 and 15-17 depend from allowable claims 1 and 14, Applicant submits that claims 2-7 and 15-17 are likewise patentable over Jenson in view Aguirre and McGraw for at least the reasons set forth above.

Claims 8 and 12-13

Claims 8 and 12-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jensen in view of McGraw. As with Claim 1, Claim 8 is drawn to a method of transferring an in-progress telephone call between a wireless device and a wired device. The method comprises:

> establishing a first **wireless communication link directly between the wireless and wired devices** when the devices are in physical proximity to each other;
> at the wireless device, transmitting a request message to the wired device **over the first direct wireless communication link** requesting transmission of an identifier;
> at the wireless device, receiving the identifier that has been **transmitted directly from the wired device** to the wireless device **over the first direct wireless communication link**;
> at the wireless device, transmitting the identifier together with a call transfer request to a network device over a second communication link; and
> at the network device, receiving the identifier together with the call transfer request and re-routing the in-progress call to the wired device. (**emphasis added**)

Thus, Claim 8 recites establishing a first wireless communication link directly between the wireless and wired devices, transmitting (by the wireless device) a request message to the wired device over the first direct wireless communication link, and receiving (at the wireless device) the identifier that has been transmitted directly from the wired device to the wireless device over the first direct wireless communication link.

Applicant submits that for at least the reasons set forth above with respect to Claim 1, Claim 8 is further patentable over Jensen in view of McGraw (with or without Aguirre).

Given that claims 12-13 depend from allowable claim 8, Applicant further submits that claims 12-13 are likewise patentable over Jenson in view of McGraw for at least the reasons set forth above with respect to Claims 1 and 8.

Claims 9-11

Claims 9-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jensen in view of Aguirre and McGraw. Given that claims 9-11 also depend from allowable claim 8, Applicant further submits that claims 9-11 are likewise patentable over Jenson in view of Aguirre and McGraw for at least the reasons set forth above with respect to Claims 1 and 8.

In conclusion, Applicant respectfully submits that claims 1-19 are in condition for allowance, and Applicant respectfully requests allowance of such claims.

Please charge any shortages and credit any overages to our Deposit Account No. 501569.

Respectfully submitted,
COLUMBIA IP LAW GROUP, PC

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please replace the paragraph beginning on page 2, line 1 with the following paragraph:

-- An ~~attempts~~ attempt to address this need in the art is described in the U.S. Patent No. 5,390,233 to Jensen et al. This patent describes a wireless network controller that supports telephone ~~calls~~ call transfers between a wireless telephone and wired telephone. In this patent, first and second wired communication channels are connected to a telecommunications switch and the wired telephone, respectively. A third wired communication channel is coupled to an RF base station that supports a plurality of concurrent wireless communication channels. An interface circuit coupled to the first, second and third channels switches the connection of the first channel associated with the telecommunications switch between the second and third channels, and thus between the wired and wireless telephones.--

Please replace the paragraph beginning on page 7, line 14 with the following paragraph:

-- Each telephone device includes a similar short-range wireless transceiver **110** to enable the devices to communicate with each other over a short-range wireless communication link **112**. Preferably, the devices communicate using a given short-range radio link that ~~confirms~~ conforms to a given protocol. In a particularly preferred embodiment, each transceiver **110** implements the Bluetooth protocol as described by the Bluetooth Specification Version 1.0 Draft Foundation, which is incorporated herein

by reference. Further details about Bluetooth are available from the site located at www.bluetooth.com. Alternatively, the short-range radio link may implement any other secure protocol, or the short-range link may instead use infrared communications instead of radio. –

Please replace the paragraph beginning on page 11, line 18 with the following paragraph:

-- **Figure 3** illustrates the architecture of a conventional cellular radio system in which the present invention may be implemented. Of course, this environment is merely exemplary. In **Figure 3**, an arbitrary geographic area **300** may be seen as divided into a plurality of contiguous radio coverage areas or cells **302a-n**. Any number of cells may be used. A base station **304** is located in and associated with each of the cells. As is well known, each of the base stations **304** includes a plurality of channel units, each comprising a transmitter, a received, and a controller (not shown). The transmitter and the received are sometimes referred to as a cellular transceiver. Typically, each base station is located at the center of its respective cell and is equipped with an omni-directional antenna **306.** As illustrated, each of the base stations is connected by voice and data links **308** to a mobile switching center **310** that, in turn, is connected to the Public Switched Telephone Network ~~310~~, or some other similar facility, e.g., an integrated system digital network (ISDN). The links **308** may comprise twisted wire pairs, coaxial cables, fiber optic cables or microwave radio channels operating in either analog or digital mode. –

Please replace the paragraph beginning on page 12, line 16 with the following paragraph:

-- With further reference to **Figure 3**, a plurality of mobile radio devices **312a-n** may be found within the cells **302**. As is well-known, each of the mobile radio devices includes a transmitter, a receiver, and controller, and a user interface, e.g., a telephone handset. The transmitter and received are sometimes referred to as a cellular transceiver. Further, one or more wired telephones **314a-n** are connectable to the PSTN **310** either directly or through known switching architectures, e.g., a central office, a tandem switch, or the like. For purposes of the inventive call-transfer routine, it is assumed that a given wireline telephone (e.g., telephone **312d**) is in physical proximity to a given wired telephone (e.g., telephone **314g**) and that each of these devices is provisioned with a short-range wireless transceiver. As described above, these devices may then communicate with each other over the short-range wireless communication link ~~315~~ between them to exchange commands and data (namely, the wired telephone's number) as has been described. --

Please replace the paragraph beginning on page 14, line 17 with the following paragraph:

-- **Figure 5** is a block diagram of an illustrative architecture of a wireline device **500** that may be used in the present invention. The device **500** may be implemented in any convenient form, such as a telephone that offers a handsfree function. Of course, the example device is not meant to limit the present invention, which can be practiced in any type of wired device. The device **500** includes a transmission circuit **502**

comprising a hybrid **504**, a receiving amplifier **506**, a transmit amplifier **508**, and a loundspeaker amplifier **510**. Device **500** also includes a receiving circuit **512** comprising a microphone amplifier ~~514~~, and a duplex controller **516** with a transmit amplifier **518** and a receiving amplifier **520**. The duplex controller **516** monitors the signal and noise on both the transmit and the receive channel to detect which channel contains the largest signal. In one embodiment, the transmission circuit **502** is a Philips Model TEA1096 circuit, and the receiving circuit 512 is a Philips Model TEA1095 circuit. The Model TEA1095 has neither integrated supply nor loudspeaker amplifier, which enables the circuit to be used in applications with external loudspeaker amplifier and external supply, such as cordless telephones and answering machines. –

Please replace the paragraph beginning on page 16, line 6 with the following paragraph:

-- **Figure 6** is a simplified block diagram illustrating how a pair of Bluetooth-provisioned devices authenticates each other. As has been described, each of the devices **602** and **604** include a similar transceiver **606**. These devices further each include a link manager **608**, which is preferably implemented in software that is executed by a processor (uP)~~610~~. The link manager **608** software carries out link setup, authentication, link configuration, and other protocols. It discovers other remote link managers and communicates with them via the Bluetooth Link Manager Protocol (LMP). To perform its service provider role, the link manager **608** uses the services of an underlying link controller **612**. These services include, without limitation, sending and receiving of data, name request, link address inquiries, connection set-up,

authentication, link model negotiation and set-up (data or data/voice), frame type (on a packet-by-packet basis), and the like. --

IN THE CLAIMS

1. (Once Amended) A method of transferring an in-progress telephone call between a wireless device and a wired device, comprising:

establishing a short-range wireless communication link directly between the wireless device and wired devices;

at the wireless device, receiving an identifier that has been transmitted from the wired device to the wireless device over the direct wireless communication link; and

at the wireless device, transmitting the identifier together with a call transfer request to enable the telephone call to be transferred to the wired device.

5. (Once Amended) The method as described in Claim 1 further ~~including~~comprising:

at the wireless device, transmitting a request message to the wired device requesting transmission of the identifier.

6. (Once Amended) The method as described in Claim 1 further ~~including~~comprising:

in a network, receiving the identifier and the call transfer request transmitted from the ~~wired~~ wireless device; and

re-routing the in-progress call to the wired device.

8. (Once Amended) A method of transferring an in-progress telephone call between a wireless device and a wired device, comprising:

establishing a first wireless communication link directly between the wireless and wired devices when the devices are in physical proximity to each other;

at the wireless device, transmitting a request message to the wired device over the first direct wireless communication link requesting transmission of an identifier;

at the wireless device, receiving the identifier that has been transmitted directly from the wired device to the wireless device over the first direct wireless communication link; ~~and~~

at the wireless device, transmitting the identifier together with a call transfer request to a network device over a second communication link; and

at the network device, receiving the identifier together with the call transfer request and re-routing the in-progress call to the wired device.

9. (Once Amended) The method as described in Claim 8 wherein the first direct wireless communication link is a short-range wireless radio communication link.

10. (Once Amended) The method as described in Claim 8 wherein the first direct wireless communication link is a short-range wireless infrared communication link.

12. (Once Amended) The method as described in Claim 8 further ~~including~~ comprising disconnecting the wireless device from the in-progress telephone call following re-routing.

13. (Once Amended) The method as described in Claim 8 further ~~including~~comprising:

having a user of the wireless device initiate the establishing of the first direct wireless communication link by entering given control commands in the wireless device.

14. (Once Amended) A communication system, comprising:

a wireless device having a first transceiver;

a wireline device having ~~the~~ a second transceiver;

a short-range direct wireless communications link over which the wireless and wireline devices communicate using their respective first and second transceivers; and

means operative in the wireless device for transferring an in-progress telephone call from the wireless device to the wireline device.

15. (Once Amended) The communications system as described in Claim 14 wherein the means for transferring comprises:

means for transmitting a request message to the wired device over the direct wireless communications link requesting transmission of an identifier;

means for receiving the identifier transmitted from the wired device to the wireless device over the direct wireless communications link; and

means for transmitting the identifier together with a call transfer request to a network device to re-route the in-progress telephone call.

18. A wireless device, comprising:

a processor;

a short-range wireless transceiver;

memory coupled to the processor, tangibly embodying a program of instructions executable by the processor for transferring an in-progress telephone call from the wireless device to a selected wireline device by the following method:

controlling the short-range wireless transceiver to transmit a request message directly to the wired device over a short-range wireless communications link requesting transmission of an identifier;

controlling the short-range wireless transceiver to receive the identifier transmitted from the wired device directly to the wireless device over the short-range wireless communications link; and

transmitting the identifier together with a call transfer request to a given network device to request re-routing of the in-progress telephone call.

19. (Once Amended) A wireline device, comprising:

a processor;

a short-range wireless transceiver;

memory coupled to the processor, tangibly embodying a program of instructions executable by the processor for receiving a transfer of an in-progress telephone call from the wireless device by the following method steps:

controlling the short-range wireless transceiver to receive a request message transmitted directly from the wireless device over a short-range wireless communications link requesting transmission of an identifier; and

controlling the short-range wireless transceiver to transmit the identifier directly to the wireless device over the short-range wireless communications link.